

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



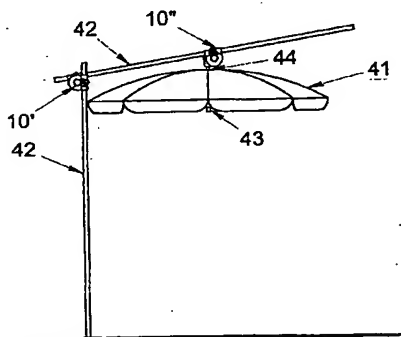
(43) International Publication Date  
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number  
**WO 2005/058088 A2**

- (51) International Patent Classification<sup>7</sup>: **A45B 23/00**
- (21) International Application Number:  
PCT/GB2004/005351
- (22) International Filing Date:  
20 December 2004 (20.12.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
0329513.6 19 December 2003 (19.12.2003) GB
- (71) Applicant (for all designated States except US): **HOY-  
LAND FOX LIMITED** [GB/GB]; Manchester Road,  
Millhouse Green, Penistone, Sheffield S36 9NR (GB).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **EARNSHAW, John,  
Michael** [GB/GB]; 74 Carr Hill Road, Upper Cumber-  
worth, Huddersfield HD8 8XN (GB).
- (74) Agent: **GIBBS, Christopher, Stephen**; Haseltine Lake,  
15-19 Kingsway, London WC2B 6UD (GB).
- (81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.
- (84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— without international search report and to be republished  
upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: **PENDULUM UMBRELLA**



(57) Abstract: A clamp (10) for holding two elongate members (23a, 23b), so that they extend at a preset angle from each other, comprises two clamp portions (12, 14) each having co-operating engaging surfaces (16a, 16b), each clamp portion having a co-axial bore (18a, 18b) extending perpendicularly to the engaging surfaces and a receiving portion for holding one of the elongate members; a stem or rod (19), passing through the bore of the clamp portions and attached at one end to a lever or handle (20) for rotating the stem in the bore, and a cam acting between the stem and at least one of the clamp portions so that the clamp portions can be moved from a position in which the engaging surfaces are not engaged to a position in which the engaging surfaces co-operatively engage by rotating the lever by approximately 90°. This clamp is quick to operate and allows umbrella shafts and poles to be assembled in a versatile way. In particular such clamps can be used to form an umbrella assembly (40) comprising an umbrella head and a pole (42) for supporting the umbrella head, the umbrella head having a runner slidably mounted on a shaft portion of the umbrella head and stretchers extending radially from the said runner to the ribs, and clamps (10, 10', 10'') for releasably attaching the umbrella head to the pole and various poles together in a frame.

WO 2005/058088 A2